# NIST Materials Data Repository (https://materialsdata.nist.gov/dspace/xmlui/):

- DSpace repository customized by NIST and KSU for use in the materials community
- Submitted data:
  - receive unique data citation & persistent identifier
  - can have author-selected usage license attached to data files

## Register & Login to Submit or View

- Register at
  - https://materialsdata.nist.gov/
- Login to NIST Materials
   Repository
  - https://materialsdata.nist.gov/ dspace/xmlui/
- Chose a collection to submit your e.g.,
   Diffusion Data
   Collection
  - https://materialsdata.nist.gov/ dspace/xmlui/community-list

### Register:



### Login:



### **Submit:**

NIST Repositories

#### **NIST Repositories**

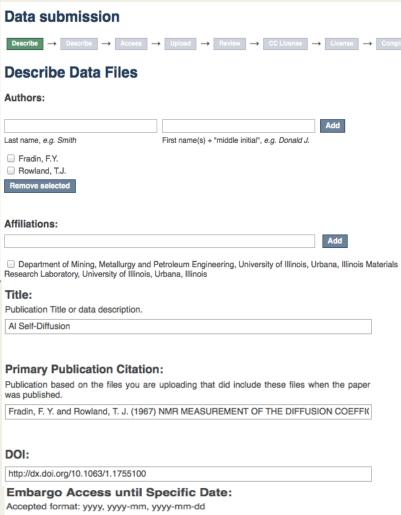
The National Institute of Standards and Technology is establishing essential data exchange protocols and mechanisms for widespread adoption to ensure quality materials data and models and to foster data sharing and reuse.

- Computational File Repository
- Experimental Data Repository
- · Huesler Phases: First Principle Simulations
- NIST/DOE-EERE Advanced Automotive Cast Magnesium Alloys
- NIST Thermodynamics and Kinetics Test Space

## **Author Instructions**

## Provide metadata so others can find your data

- 1. Author: Click on "Add More" to add as many as needed.
- 2. Affiliation: Click on "Add More" to add as many as needed.
- 3. Contact Email: Add name of author(s) in parentheses after email(s).
- Title: All submissions must have a title.
- 5. Primary Publication Citation: Include title, date, volume, & page.
- 6. DOI: Add the Digital Object Identifier if known.
- 7. Related Publication(s) by Author: Add related works.
- 8. URL: Add public websites for submitted or related work.
- 9. Type: Select as many types as are included in your submission.
- 10. Subject/Keywords: Add relevant keywords &/or Preferred terms.
- 11. Provide Supplemental Information e.g, abstract, support
- 12. Select Private or Embargo Access Settings if needed.



## Select & Describe Files to be Uploaded

### **Recommendations to Authors:**

Consider having a ReadMe file in a plain text file to describe the submitted files and analysis performed.

### Information to include:

- \*Who collected the data and whom to contact with questions
- \*Disclaimers individual and/or institutional
- \*Each filename and a short description of the data included Identify:
  - \*Column headings for any tabular data
  - \*Units of measurement
  - \*Specialized file formats and software

## Upload, License, & Submit

- Upload Files
  - Select File(s): Click "Browse" button to upload file(s).
- Review Submission:
  - Click on corresponding buttons to modify details.
- License Your Work:
  - You can <u>choose</u> to attach a Creative Commons License.
- Agree to Distribution License:
  - You <u>must</u> agree to ASM's nonexclusive license.
- Complete Submission:
  - You will receive an email with a link to your work after it has been added to SMDDP Repository with an assigned data citation and persistent identifier.

### Review Submission

#### Describe Data Files

#### Authors:

Fradin, F.Y.

#### Authors:

Rowland, T.J.

#### Affiliations

Department of Mining, Metallurgy and Petroleum Engineering, University of Illinois, Urbana, Illinois Materials Research Laboratory, University of Illinois, Urbana, Illinois

#### Title:

Al Self-Diffusion

#### Primary Publication Citation:

Fradin, F. Y. and Rowland, T. J. (1967) NMR MEASUREMENT OF THE DIFFUSION COEFFICIENT OF PURE ALUMINUM, Appl. Phys. Lett. 11, 207

#### DOI:

http://dx.doi.org/10.1063/1.1755100

#### Type of Data to be uploaded (as many as apply):

Data file

#### Type of Data to be uploaded (as many as apply):

Image

Correct one of these

#### **Describe Data Files**

#### Keywords:

Computational File Repository Categories::PROPERTY CLASSES::Kinetics::Diffusion::Tracer Diffusion

#### Keywords

Chemical diffusion (Interdiffusion)

Correct one of these

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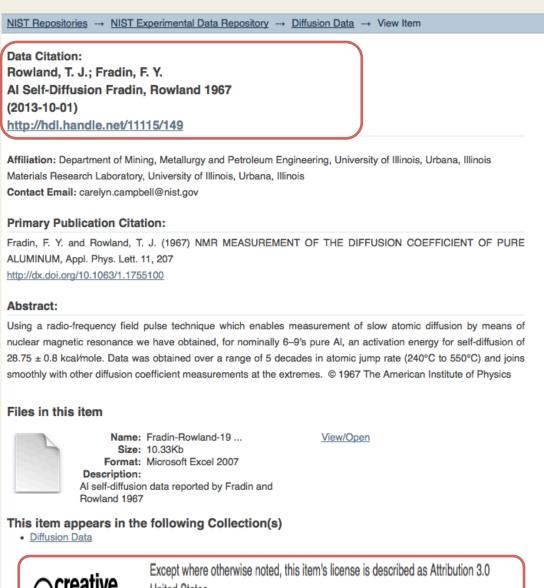
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You will receive an email confirmation with a link to your submission

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United States

## Data Citations & Persistent IDs

Data
Citation

& Study of Si self-diffusion by nuclear techniques

Persistent

| Data Citation: | Demond, F. J.; Kalbitzer, S.; Mannsperger, H.; Damjantschitsch, H. | Study of Si self-diffusion by nuclear techniques

| Column | Citation: | Demond, F. J.; Kalbitzer, S.; Mannsperger, H.; Damjantschitsch, H. | Study of Si self-diffusion by nuclear techniques

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| Citation: | Citatio

### 1. Data Citations:

- Raise visibility and attribution of data
- Recognize funders' support and comply with requirements
- Reduce duplication of effort

## **2. Persistent Identifiers** (PIDs)

- Provide easy identification, verification, and re-usability of data
- Resolve via an outside handle registry server
- Support persistence and data quality

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